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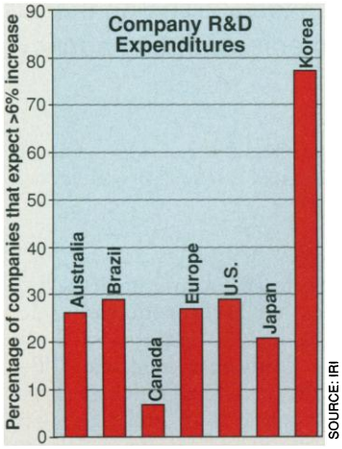


## Industry Sees Rise in R&D Spending

U.S. companies are planning to boost R&D spending in 1997—but at a slightly slower pace than they have done this year. And companies around the world, which were asked about their plans for the first time, project an equally rosy outlook.

The new data come from the annual R&D trends survey conducted by the Industrial Research Institute (IRI), which represents 265 U.S. firms. This year's results, released earlier this week, show that 29% of the 121 U.S. companies that responded expect to ratchet up their R&D spending by 6% or more, 17% expect to increase their hiring of new graduates by at least that magnitude, and 19% anticipate a similarly large jump in grants to university researchers. Last year, the comparable figures were 38%, 23%, and 24%. Overall, R&D spending is projected to rise by 5.6% in 1997.

Recent history shows the actual figures may be higher. Preliminary figures for the top 100 companies suggest that 1995 spending will be nearly double the projected 5%, says IRI executive director Charles Larsen, adding that 1996 looks "at least as strong."

Outside the United States, the largest spending increases are forecast for Korea, with 77% of 110 companies predicting that their budgets will rise by at least 6%. And 60% of the firms predict similar increases in the hiring of new graduates. However, Larsen cautions that the Korean numbers have to overcome annual inflation rates of 10% to 12%, much higher than in most industrialized countries.

## NASA Pledges to Fix Grant Bottleneck

NASA faces a rising chorus of complaints from academic researchers who say it takes too long—up to 5 months—to get their money once grant-winners have been chosen. The agency is now scrambling to ease such concerns by promising to follow a strict timetable.

At a recent meeting of outside NASA advisers, California Institute of Technology astronomer Anneila Sargent told NASA acting Deputy Administrator Jack Dailey that "there is a great deal of frustration in the community, and things have gotten much worse." She cited a "huge bottleneck" in recent months in processing grant money after winning proposals have been chosen. NASA managers now are promising that the 1500 or so grantees—who receive on average $60,000 a year—will get their checks within about 2 months of selection, according to Henry Brinton, chief of NASA's planetary science branch.

Brinton says NASA's already poor record worsened this summer when control of grants was shifted from Washington headquarters to Goddard Space Flight Center in Maryland, but he adds that the delays should be smoothed out soon. Scientists say they're optimistic. "We've had a very sympathetic reaction from NASA," says Klaus Keil, a planetary scientist at the University of Hawaii. Both Keil and Sargent add that factors external to NASA have added to the problem, including the growing reluctance of university administrators to give cash advances to researchers waiting for grants.

## Minnesota Regents Soften Tenure Plan

Faculty at the University of Minnesota—irate over what they viewed as an attempt to gut the school's tenure system—are cooling off now that the university's Board of Regents appears to have backed off from an earlier plan. At an "emergency" meeting held on 7 November, the regents accepted a compromise proposal that covers only the law school.

The regents' original plan, put forth in September and designed to cover the entire university, would have allowed layoffs of tenured academics in the event of program terminations and individual cuts in base pay. Faculty members were so worried that they began to sign "authorization" cards as a first step toward forming a union (*Science*, 20 September, p. 1653). Once 30% of the faculty had signed, state law required the regents to stick to the status quo until after a vote on unionizing, now set for early next year.

But because the law faculty had not signed enough cards, the regents were able to pass a new tenure code covering the law school. In doing so, the regents softened their position, however. The revised law school plan says that academics whose programs are cut would be given new jobs, and any cuts in base pay would be collegewide and subject to faculty approval. Fred L. Morrison, a law school professor, says this new tenure code is very similar to rules that faculty themselves had suggested last spring: "My sense is the rest of the university should be happy to go along with it."

Faculty members haven't thrown out their union authorization cards, however. Morrison and others say there is so much mistrust of the regents that the idea of unionizing, while distasteful to most, is by no means dead. Much depends on the policies of the next university chief. President Nils Hasselmo—who opposed the regents' proposal—is leaving, and the regents are to select his successor next month.

## Light in Saskatchewan: Canada Plans a Synchrotron

Canadian physicists are hoping to catch up with the rest of the industrialized world soon by building their own synchrotron light source. This week, a group of researchers was planning to ask the federal government to ante up $77 million for a Canadian Light Source, a 47-meter-diameter ring for accelerating electrons to be located in Saskatchewan.

While synchrotrons have been springing up all over the globe, even in Korea and Brazil, Canadian scientists have had to beg for beam time on international machines. But lately, they "aren't too welcome anymore," according to the Canadian synchrotron project's chief proponent. "The feeling is that Canada is freeloading," says Dennis Skopik, director of the Saskatchewan Accelerator Laboratory. So he and his colleagues drew up a plan for a 2.5 billion-electron-volt synchrotron that would produce a full spectrum of radiation, from ultraviolet to hard x-rays.

The proposal was approved by an international peer-review panel last spring and endorsed by Canada's Natural Sciences and Engineering Research Council last month. NSERC's Bob McAlpine says the project "opens up possibilities in many, many fields," including protein crystallography and micro-machining. The University of Saskatchewan, the province, and other sources have pledged about $38 million for capital costs, estimated at $115 million. But sponsors need $77 million more, as well as $8 million per year in operating funds, from the feds.

The project could benefit from good timing. Canada's Liberal government recently pronounced the nation's deficit "tamed," and the synchrotron could figure as a campaign goody for Saskatchewan in the general election expected next spring. Skopik says: "We hope to get this in next year's budget," which will be presented shortly before the election.